

REMARKS

Reconsideration is respectfully requested in view of the foregoing amendment and remarks that follow.

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Claim 1 has been amended to incorporate the limitations of multiple-measurement-points (from previous claim 2) and partial-tone/full-tone density measurement and comparison (from claim 7). This combination is not found in the prior art.

10 Claim 12, the apparatus claim corresponding to method claim 1, is amended in the same manner.

Claim 20, the means claim corresponding to method claim 1, is amended in the same manner.

15 Claims 7 and 17 are further amended to limit the comparisons to halftone/full-tone measurements to derive dot-gain. This derivation is disclosed, for instance, on page 10, lines 4-7.

In the Office Action of 3/30/04, page 3, paragraph 3, Examiner states

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“...Maier et al. do not teach a spray dampening system. Maier et al. teach a spray dampening system.”

Said statements being mutually contrary, Applicant assumes the 2nd occurrence of the name

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“Maier” should be “Zorn.”

On the topic of obviousness, our reviewing Courts have held:

5 “Most if not all inventions arise from a combination of old elements. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-1317 (Fed. Cir. 2000)(citations omitted).

15 “The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure. In determining whether such a suggestion can fairly be gleaned from the prior art, the full field of the invention must be considered; for the person of ordinary skill is charged with knowledge of the entire body of technological literature, including that which might lead away from the claimed invention. *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988)

Claims 1, 3, 7, 11, 12, 14, and 17 stand anticipated by Maier (US Patent 5,258,925) . With the inclusion of the limitations of previous claims 2 and 7 into claim 1 and the corresponding changes in claim 12, these claims will be considered to stand obvious over Maier in view of Zorn (US Patent 5,713,286).

Maier teaches, in the measurement of partial-tone and full-tone fields, blurring-detection (Fig. 2) and problem-detection (Fig. 3), and “relates in particular to problems in ink diffuse reflection processes that *cannot* be corrected by changing the ink metering or the damping medium metering...” (Column 3 lines 5-10)(emphasis added) If no blurring or problems are detected, the control algorithm of Block 2 (Fig. 2) or Block 102 (Fig. 3) is executed. Maier is silent on any motivation, suggestion, teaching of desirability, or expectation of success of dampening control of each of multiple zones. The conditions Maier is designed to diagnose, namely , “register shifts, web tension fluctuations with certain frequencies, machine vibration

and oscillations and temperature changes” (Column 3 line 8-10), “slow variation in ink flow” (Column 4 line 31), “fast variation in ink flow” (Column 4 line 35), “ink flow interruption” (Column 4 line 41), “long term (doubling)” (Column 4 line 45), and “brief blurring” (Column 4 line 49) are not related to zones but affect the entire width of the web, so the concept of multiple zones is not useful to Maier.

Zorn teaches control of dampening by sensing reference brightnesses of multiple “non-plate contacted” areas (Column 2 lines 62-63) and comparing to “contacted, but not printed” areas (Column 2 lines 60-61). Zorn is limited to “the extreme condition of a dryup” (specification, page 10, line 19) and teaches away from use of printed areas for determining dampening: “Even yet a further object of the present invention is to provide a method for regulating dampening agent which *does not limit* the usable printing area of the printing cylinder’s circumference *by the use of printing control elements.*” (Column 2 lines 42-47) “*No print control elements are needed* because the evaluation occurs in an image-free strip of the web.” (Column 3 lines 15-17); “...the present invention which *does not require the printing* of printed control elements or patterns on the web.” (Column 3 lines 19-22); “...reflected light in these *image free areas* 36 or 37 is only slightly different from the light reflected from the *blank web* 1 in the center strip 34...” (Column 6 lines 36-38)(all emphases added) Zorn is silent on any motivation, suggestion, teaching of desirability, or expectation of success of the comparison of full-tone to partial-tone printed areas. Zorn teaches away from such use, specifically excluding the need for “print control elements” from his invention; i.e. Zorn is mutually exclusive with Maier. It is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983); MPEP 2145 (X)(D)(2). It is also improper to find obviousness where the prior art references “diverge from and teach away from the invention at hand.” W.L. Gore v. Garlock, 721 F.2d 1540.

Even assuming, *arguendo*, that Maier and Zorn are combinable, there is nevertheless no motivation, suggestion, teaching of desirability, or expectation of success in the combined teachings of Maier plus Zorn to provide the limitations of instant claim 1.

- 5 Claims 3, 7, and 11 are dependent on amended claim 1 and are considered patentable for the same reasons.

Claim 12, the apparatus claims corresponding to method claim 1, is amended in the same manner, by inclusion of the limitations of previous claim 13 and claim 17, and is considered
10 patentable for the same reasons.

Claims 14 and 17 are dependent on amended claim 12 and are considered patentable for the same reasons.

- 15 Claims 5, 6, 8, 16, 18 and 20 stand obvious over Maier in view of Zorn.

Claims 5, and 6 are dependent on claim 1 and are considered patentable for the same reasons.

Additionally, claim 6 contains the limitation of “pulse-width modulation...” (PWM). Zorn
20 contains no such teaching, instead teaching frequency-modulation (FM); “a change in the frequency.” (Column 7 line 2) Zorn teaches away from control by PWM.

Claim 8 is dependent on claim 1 and is considered patentable for the same reasons.

- 25 Claim 16 and 18 are dependent on claim 12 and is considered patentable for the same reasons.

Claim 20, the means claim corresponding to method claim 1, is amended in the same manner and is considered patentable for the same reasons.

Claims 4, 10, 15, and 19 stand obvious over Maier in view of Quadracci (US 5,791,249). As amended via their parent claims, these claims are now considered patentable. Quadracci is silent on the limitation of control of each of multiple zones and so does not cure the defects of Maier.

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Claim 9 stands obvious over Maier in view of Kipphan (US 5,050,994). This rejection is respectfully traversed. Claim 9 contains the limitation of calculation of the “swim” of the measurements. “Swim” is defined in the specification as “is inconsistent, with measurements varying with a standard deviation of about 0.1D or greater” (specification, page 3 line 16-17);

10 “The ‘swimming’ nature of the color may be used as a diagnostic of excess dampener. If the previous number of measurements, for example the trend over 10 measurements, of either a full-tone or halftone area, shows ‘noisy’ readings (a large standard deviation of the readings)...” (Page 11 lines 18-20); “‘swim’ represents the measurement noise, such as the standard deviation of the previous 10 measurements, appearing over the previous number of
15 measurements” (Page 12 lines 2-3). In contrast, Kipphan diagnoses excess dampener by “the full tones of zones with a small inking-zone opening are poorly covered and less inked than the full tones of zones with a larger opening, then there is in this case an excess of dampening medium.” (Column 9 lines 36-40.) Kipphan diagnoses excess dampener by comparing measurements at different *zones*, while diagnosis of “swim” compares measurements at
20 different *times*. Note that Kipphan teaches away from zonal dampening control; “...feeding of dampening medium is not controlled zonally.” (Column 9 lines 30-31)

The instant invention is considered patentable over Yamamoto (US 6,601,512). Yamamoto only teaches of dampener control by “varying the rotating rate of fountain roller 32.” (Column
25 7 line 43) and is silent on the limitation of dampening control of each of multiple zones.

The instant invention is considered patentable over Leurer (US 5,568,769). Similar to Yamamoto, Leurer only teaches of a singular dampener control by “increase or decrease of the rpm of the moisture ductor, not shown, driven by a motor 8.” (Column 2 lines 38-39)

The instant invention is considered patentable over Hank (US 4,881,182). Hank is silent on the limitation of dampening control of each of multiple zones.

- 5 In view of these amendments and remarks, allowance of the claims as amended is respectfully solicited.

Respectfully,

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date

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